Hydrologic Model Manager

Short Name	ILUCAT
Long Name	Illinois Urban Catchment Runoff Simulation
Description	
Model Type	ILUCAT is an event based rainfall runoff simulation model for small watershed.
Model Objectives	The main purpose is to produce simulation of the runoff hydrographs for small catchments through the rainfall-abstraction-runoff process with reasonable and practical data demand.
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Model Structure	A distributed system model based on water budget (continuity equation) and flow process (kinematic wave equation) considering rainfall, initial losses, continuous infiltration loss, overland flow, for individual rain events over small urban or rural catchments. Developed to couple with NISN network model for channel runoff in watersheds.
Interception	
Groundwater	
Snowmelt	
Precipitation	
Evapo-transpiration	
Infiltration	
Model Paramters	Uniform rainfall intensity and duration over a catchment, different catchments can have different rainfalls. Abstractions are different for five different components in a catchment. Infiltration parameters in Horton form. Soil is represented by SCS soil groups A, B, C and D. Main computed parameter is surface runoff rate at catchment outlet.
Spatial Scale	Each catchment is divided into five different surface components following two different flow paths.
Temporal Scale	User defined or default time discretization in model for individual events.
Input Requirements	Catchment data: direct impervious and pervious surfaces, indirect supplemental impervious and pervious soil type for each surface. Specified or default initial losses. Rainfall: rain data file or triangular hyetograph or IDF relationship.
Computer Requirements	PC running on DOS
Model Output	Catchment runoff hydrograph
Parameter Estimatn Model Calibrtn	Calibration is encouraged but not required
Model Testing Verification	Tested on a few urban catchments
Model Sensitivity	
Model Reliabiity	Need reliable data to establish
Model Application	
Documentation	User's manual, also see Yen, B.C., Pagliara, S. and Bottazzi, E., " A Practical Effective Urban Catchment Runoff Simulation Model," Proceedings, 8th Int'l

	Conf. Urban Storm Drainage, e.d. by I.B. Joliffe and J.E. Ball, Vol. 4, pp. 1880-1886, Sydney, Australia, September, 1999.
Other Comments	
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Developer	
Technical Contact	
Contact Organization	